REMARKS

This Response is filed in reply to the Office Action dated April 24, 2008. Claims 1-54 are pending all of which are rejected. In this Response no claims are amended or cancelled and no new claims are added. Accordingly, claims 1-54 remain pending in the application, of which claims 1, 21, 30 and 39 are independent.

Silence with regard to any of the Examiner's rejections is not acquiescence to such rejections, but rather a recognition by Applicants that such previously lodged rejection is moot based on Applicants' remarks and/or amendments. Specifically, silence with regard to Examiner's rejection of a dependent claim, when such claim depends from an independent claim that Applicants consider allowable for reasons provided herein, is not an acquiescence to such rejection of the dependent claim, but rather a recognition by Applicants that such previously lodged rejection is moot based on Applicants' remarks and/or amendments relative to the independent claim (that Applicants consider allowable) from which the dependent claim depends. Furthermore, any cancellations of and amendments to the claims are being made solely to expedite prosecution of the instant application. Applicants reserve the option to further prosecute the same or similar claims in the instant or a subsequent application.

Claim Rejections Under 35 U.S.C. §102 ¶2

Claims 2-17, 22, 25-29, 31, 34-38, 40 and 44-51 stand rejected under 35 U.S.C. §102 ¶2, the Examiner taking the position that it is inconsistent for claim 1 to recite that a function is applied to a requested address to obtain a return address while the rejected dependent claims recite that the function comprises an action using some other value such as, for example, hashing a user address (claim 2, 31), time (claim 7) or both (claim 22, 40), changing a used one of the block of addresses over time (claims 8, 25, 34, 44). However, for the reasons presented, the limitations are not inconsistent and do not render the rejected claim indefinite. Accordingly, the rejection is respectfully traversed.

As described in the specification:

[0025] The use of dark space and requestor-specific address resolution can assist in detecting attempts at malicious or unauthorized access to network 102 or resources 106 on network 102. Referring more particularly to Fig. 2, method 200 can begin at 202 when a request is made for an address, for example from a DNS. Rather than associating a single IP address with a resource 106, system 100 can provision a large block of IP addresses such as a /24 or 256 IP addresses. As an example using standard IP prefix notation, "41.5.63.0" can signify an address for a resource 106, referred to hereafter as the requested address, and "41.5.63.0/24" can signify the block of 256 addresses for that resource 106.

Specification at page 9, lines 1 – 8.

Thus, a least one independent value used in determining a return address is the address requested from a user. Claim 1 describes this as:

> applying a function to said address to obtain a return address, said return address corresponding to a used one of a block of addresses;

To define a specific address the function may include more as provided by the open-ended "comprising" language of, for example, rejected claim 2:

> 2. The method according to claim 1, wherein applying said function comprises hashing a user address of said user to obtain one value of a range of values mapping to said block of addresses, said one value designating said used one of said block of addresses.

That is, as recited by claim 2, the function includes hashing a user address to obtain a value. This value may be dependent on **both** (i) the requested address **and** (ii) a hash of the user address. There is nothing inconsistent with a function using two independent values to provide a return address.

Since, for the reasons presented, the language of the rejected claims is not inconsistent with that of the respective base claims, the rejection under 35 U.S.C. § 112, second paragraph, is improper and withdrawal thereof is respectfully requested.

Claim Rejections Under §103

Claims 1, 8-11, 13-21, 23-26, 28-30, 32-35, 37-39, 41-45 and 47-54 stand rejected under 35 U.S.C. §_103(a) as being unpatentable over Network Working Group RFC 2131 of R. Droms ("Droms") in view of Liston, U.S. Patent Publication No. 20040103314.

Claims 2-7, 22, 31 and 40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over "the modified" Droms and Liston further in view Hasty, Jr., et al, U.S. patent Publication No. 20030179750 ("Hasty").

Claims 12, 27, 36 and 46 stand rejected under 35 U.S.C. §103(a) as being unpatentable "the modified" Droms, Liston and Hasty. further in view of Griffiths et al., U.S. Patent No. 6,286,045 ("Griffiths").

All rejections under 35 U.S.C. § 103(a) are respectfully traversed for failure of the cited references to teach or suggest the language of the rejected claims and for lack of any teaching, suggestion, or motivation for making the asserted combination.

Addressing the primary reference of Droms that forms the basis of all outstanding rejections under 35 U.S.C. 103(a), the RFC describes Dynamic Host Configuration Protocol (DHCP):

> *DHCP supports three mechanisms for IP address allocation. In "automatic allocation", DHCP assigns a permanent IP address to a client. In "dynamic allocation", DHCP assigns an IP address to a client for a limited period of time (or until the client explicitly relinquishes the address). In "manual allocation", a client's IP address is assigned by the network administrator, and DHCP is used simply to convey the assigned address to the client.*

Droms at page 3.

The Examiner has taken the position that "checking that the network address is not already in use" is equivalent to the function of claim 1. In support, the Examiner cites to Droms at section 3.1, number, which reads as follows:

> 2. *Each server may respond with a DHCPOFFER message that includes an available network address in the 'yiaddr' field (and other configuration parameters in DHCP options). Servers need not reserve the offered network*

> *address, although the protocol will work more efficiently if the server avoids allocating the offered network address to another client. When allocating a new address, servers SHOULD check that the offered network address is not already in use; e.g., the server may probe the offered address with an ICMP Echo Request. Servers SHOULD be implemented so that network administrators MAY choose to disable probes of newly allocated addresses. The server transmits the DHCPOFFER message to the client, using the BOOTP relay agent if necessary.*

Droms at pages 12 – 13.

That is, the server responds to a DHCPDISCOVER – a message broadcast by a client to locate available servers, using a DHCOFFER message, a message from the server to the client with an offer of configuration parameters including an available network address. However, there is no suggestion that the available network address is a function of a requested address as the term "function" would be understood in the context of the present claims. That is, while a device according to Droms may "function", that is operate, to provide an available network address, that is not equivalent to *"applying a function* to said address to obtain a return address". Citing again to Applicants' disclosure:

> As an example using standard IP prefix notation, "41.5.63.0" can signify an address for a resource 106, referred to hereafter as the requested address, and "41.5.63.0/24" can signify the block of 256 addresses for that resource 106.

Specification at page 9, lines 6-8.

As in the example, the claimed return address is a function of the requested address. According to some of the dependent claims, the return address may further be a function (e.g., a hash) of a user address or a time "to obtain one value of a range of values mapping to said block of addresses" (claim 2). Droms fails to describe or suggest applying a function to a received address to obtain a return address and therefore fails to render obvious the rejected claims.

The rejections under 35 U.S.C. § 103(a) are further considered to be improper for lack of any teaching, suggestion, or motivation for making the asserted combination. Absent such basis for combining or modifying the teachings of the prior art to produce

the claimed invention the rejection is improper. In re Kahn, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006) (discussing rationale underlying the motivation-suggestion-teaching test as a guard against using hindsight in an obviousness analysis). Further, if, as here, the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. MPEP § 2143.01(V) citing In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

The primary Droms reference is directed to defining a client-server protocol that provides a requestor with "an available network address". Thus it would appear that implementing the protocol taught by Droms would result in the return of a valid address. The Examiner applies Liston for detecting unauthorized attempts to access a resource when the request corresponds to an unused address. However, since Droms returns an available network address, this functionality would appear to defeat the functionality taught by Liston to monitor for addresses directed toward unused Interntet protocol addresses within a computer network. Alternatively, if "available network address" supplied according to Droms is considered equivalent to an unused address, then combining Droms and Liston would result in all accesses being identified as unauthorized. In either case, the functionality described by Droms of providing an available address defeats the intrusion detection of Liston, rendering it inoperative for its intended purpose. Accordingly the combination under 35 U.S.C. § 103(a) is improper.

The rejection is additionally improper for lack of any suggestion to make the asserted combination. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art. MPEP § 2143.01(III) citing KSR International Co. v. Teleflex Inc., 550 U.S. ___, ___, 127 S. Ct. 1727, 82 USPQ2d 1385, 1396 (2007). One skilled in the art would have no reason to modify an address scheme according to Droms as suggested by the Examiner absent impermissible hindsight derived from Applicants' disclosure.

The combination further fails to describe or suggest the subject matter of dependent claims 2, 4-6, 18-20, 23-24, 31-33, 40-43 and 52-54. For example, claims 2, 22, 31 and 40 require hashing a user address to obtain one value of a range of values mapping to the block of addresses, the one value designating the used one of the block of addresses. Hasty describes the use of a deterministic hash function applied to a six byte MAC address to provide two bytes of the IP address unique to each node. Thus, as best understood, applying Hasty to Droms would result in a particular requested address always being assigned the same return address. In contrast, claim 2 requires that the hash be applied to the user's address (not the requested address) so that different return addresses are generated for a particular requested address.

The addition of Griffiths fails to cure the defects inherent in the outstanding rejections. As before, there is no teaching, suggestion, or motivation for modifying Droms to include the intrusion prevention features taught by Liston, much less to include any additional teaching according to Griffiths. The rejections based on the addition of Liston are further improper as neither that patent nor the combination describe or suggest "hashing a time of [a] request" (claims 3 and 7), "changing said used one of said block addresses over time" (claims 8, 25, 34 and 44), "applying [a] function comprises determining a time period for changing said one of said block of addresses" (claim 9).

The further modification of Droms in view of Liston and Hasty further in view of Griffiths et al. is not only improper but would not result in the claimed combination for the reasons previously set forth and for the following. Griffiths et al. describes randomly selecting an IP address to monitor a round trip time between a DNS server and an information server. This functionality has nothing to do with Droms, Liston or Hasty. There is no teaching, suggestion or motivation for making the combination other than hindsight reconstruction using Applicants' claim as a template.

In summary, Applicants traverse the Examiner's rejections under 35 U.S.C. § 103(a), and respectfully request reconsideration in view of the remarks herein.
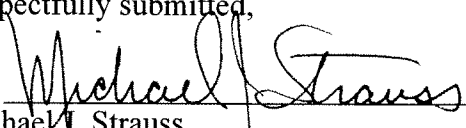
CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to enter the present amendment, withdraw all outstanding rejections, and pass this application to issue.

Applicants believe no fee is due with this response. However, if any other extension of time under 37 C.F.R. §1.136 is required the petition is hereby made. Further, if any other or additional fee is due, please charge our Deposit Account No. 06-2375, under Order No. 414.094/10802357 from which the undersigned is authorized to draw and please credit any excess fees to such deposit account.

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Respectfully submitted,

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